

cancer.org | 1.800.227.2345

Tanning Pills and Other Tanning Products

Several products claim to give a person a tan without exposing them to <u>ultraviolet (UV)</u> <u>radiation</u>¹. Some may be safe and effective, but others might not work, and some could even be harmful.

Tanning pills, shots, nasal sprays, and accelerators

Tanning pills contain color additives similar to beta-carotene, the substance that gives carrots their orange color. Once swallowed, the additives are deposited throughout the body, especially the skin, turning it an orange-like color. Although the US Food and Drug Administration (FDA) has approved some of these additives for coloring food, they are not approved for use in tanning agents. They may be harmful at the high levels that are used in tanning pills. The main ingredient in most sunless tanning pills, canthaxanthin, can show up in your eyes as yellow crystals, which may cause injury and impair vision. There have also been reports of liver and skin problems.

Tanning shots (injections under the skin) and nasal sprays contain chemicals such as melanotan I and melanotan II. These lab-made compounds are related to melanocyte stimulating hormone (MSH), which prompts skin cells to make more melanin (the brown pigment that gives the skin its tan or brown color). These and similar products are sold online and in other places. However, these products aren't regulated, so it's not always clear what they contain. They may cause nausea, vomiting, or other side effects, and some reports have also suggested they might increase the risk of melanoma skin cancers.

Tanning accelerators, such as lotions or pills that contain the amino acid tyrosine or its derivatives, do not work and may be dangerous. Marketers say these products stimulate the body's own tanning process, but most evidence suggests they don't work. The FDA

considers them unapproved new drugs that have not been shown to be safe and effective.

None of these products have been approved by the FDA for tanning purposes among the general public.

Bronzers and sunless tanners

Two other sunless tanning products, bronzers and sunless tanners, are considered cosmetics for use on the skin. They are not thought to be harmful when used properly.

Bronzers, made from color additives approved by the FDA for cosmetic use, are applied to the skin to tint its color for a short time. Examples include certain tinted moisturizers and brush-on powders. Like other types of makeup, they can be washed off, returning the skin to its normal color.

Sunless tanners (also known as *self-tanners* or *extenders*) are applied to the skin as lotions or creams, where they interact with proteins on the surface of the skin to produce a darker color. Like a tan, the color tends to wear off after a few days. A commonly used FDA-approved color additive for sunless tanners is dihydroxyacetone (DHA).

Applying these products by hand can sometimes lead to uneven coloring, so some tanning salons have begun to offer whole body sprays in tanning booths. A concern here is that DHA is approved for external use only. It should not be inhaled or used in or on the mouth, eyes, or nose. People who choose to get a DHA spray tan should make sure to protect these areas.

These products can give skin a darker color (although some people may notice a slight orange tinge), but unless they contain sunscreen ingredients, they don't offer much protection from the damaging effects of UV radiation. Even if they do contain sunscreen, it would only be effective for a couple of hours. Read the label carefully to determine if a product provides any protection, but in most cases it's safest to continue to use sunscreen and wear protective clothing when going outside.

Hyperlinks

1. www.cancer.org/cancer/cancer-causes/radiation-exposure/uv-radiation.html

References

Habbema L, Halk AB, Neumann M, Bergman W. Risks of unregulated use of alphamelanocyte-stimulating hormone analogues: A review. *Int J Dermatol.* 2017;56(10):975-980.

US Food and Drug Administration. Sunless Tanners and Bronzers. 2018. Accessed at https://www.fda.gov/cosmetics/cosmetic-products/sunless-tanners-bronzers on May 22, 2019.

US Food and Drug Administration. Tanning Pills. 2018. Accessed at https://www.fda.gov/cosmetics/cosmetic-products/tanning-pills on May 22, 2019.

Last Revised: March 9, 2022

Written by

The American Cancer Society medical and editorial content team (www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

cancer.org | 1.800.227.2345